

## **REMARKS**

Consideration and entry of this paper, and reconsideration and withdrawal of the rejections of the pending claims are respectfully requested in view of the amendments and remarks herein, which place the application in condition for allowance, or in better condition for appeal.

### **I. STATUS OF THE CLAIMS AND FORMAL MATTERS**

Claims 25, 27-32, 34-44, and 47-48 are now pending in the present application. Claims 25, 34-39, 44 and 47 have been amended.

Claims 25, 34-39, and 44 have been amended to expedite prosecution. In addition, claims 34 and 47 have been amended to address informalities. Support for the amendments to the claims can be found in the specification and claims as originally filed.

No new matter has been introduced.

It is respectfully submitted that the claims, herewith and as originally presented, were in full compliance with the requirements of 35 U.S.C. § 112. It is respectfully submitted that the amendments of the claims, as presented herein, are not made for purposes of patentability within the meaning of 35 U.S.C. §§ 101, 102, 103 or 112, but rather that these amendments are made simply for clarification and to round out the scope of protection to which Applicants are entitled.

Applicants note with appreciation that claim 48 has been allowed. The Office Action indicates on page 1 that claims 43 and 44 are also allowed; however, claims 43 and 44 are later rejected in the Office Action under 35 U.S.C. § 112, first paragraph. Clarification is requested.

Applicants also note with appreciation that the rejections under §§ 102 and 103 and for double patenting have been withdrawn.

The issues raised by the Examiner in the Office Action are addressed below in the order they appear in the prior Action.

### **II. THE OBJECTIONS TO THE CLAIMS ARE OVERCOME**

Claims 34 and 47 are objected to because of informalities concerning the use of certain terms regarding promoters. In order to expedite prosecution of the pending claims, claims 34 and 47 have been amended as suggested by the Examiner to overcome these informalities. Accordingly, the objections to the claims are obviated.

**III. THE REJECTIONS UNDER 35 U.S.C. § 112,  
FIRST PARAGRAPH (WRITTEN DESCRIPTION) ARE OVERCOME**

Claims 25, 27-32, 34-44, and 47 are rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. The claims are alleged to contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicants respectfully traverse in view of the claims as amended.

With respect to claim 25 (and claims dependent thereon), the Examiner contends there is no clear support for embodiments where nucleotides 324 to 488 are deleted and the tumor-specific promoter is linked to one or more early genes selected from E1, E2, and E4. To expedite prosecution of the pending claims, claim 25 has been amended to recite that the early gene is E1.

The Examiner further contends that the recitation of “comprising” in claims 25 and 34 (and claims dependent thereon) encompasses larger deletions that are not clearly supported in the specification that comprise nucleotides 324 to 488. In the interest of expediting prosecution of the pending claims, claims 25 and 34 have been amended to recite “containing”, which was recited in original claim 34.

Further with respect to claims 25 and 34 (and claims dependent thereon), the Examiner alleges that the limitation concerning the deletion of nucleotides 324 to 488 encompasses embodiments not disclosed in the original specification. In order to expedite prosecution, as discussed below regarding the § 112, second paragraph rejection, claims 25 and 34 have been amended to no longer recite the term “ranging from”.

With respect to claims 35-39, the Examiner alleges that treatment of the recited cancers and wherein the adenovirus does not cause hepatic injury is not supported by the original specification. To expedite prosecution of the pending claims, claims 35-39 have been amended to recite that the promoter region is from a gene encoding vascular endothelial growth factor.

With respect to claims 43 and 44, the Examiner contends that the specification does not direct one of skill in the art to prepare and use a conditionally replicative Ad5 vector with a chimeric Ad5/CAd2 fiber and E1A promoter replaced with one of the recited promoters.

The Examiner alleges that the general statements in paragraphs 0072 and 0086 of the application as published do not direct one of skill in the art to prepare and use a conditionally replicative Ad5 vector with a chimeric Ad5/CAd2 fiber and an E1A promoter replaced with one of the recited promoters. As noted in Applicants' response filed May 18, 2007, Example 14, which explicitly discloses the use of a chimeric Ad5/CAd2 fiber in conjunction with a CXCR4 or survivin promoter, is illustrative of one embodiment only and is not to be construed as limiting the invention. In particular, the specification teaches CAR-independent infectivity via the preparation and use of fiber-modified adenoviral vectors (see e.g., Examples 1-3, 8, and 11-14), including, in Example 14, the preparation and use of a CRAAd comprising a chimeric Ad5/CAd2 fiber. Concomitantly, the specification teaches preparation and use of different promoters in conjunction with modified fiber domains in conditionally replicative adenoviral vectors in order to increase promoter activation specificity (see e.g., Examples 11-14), with one embodiment of this promoter use being exemplified in Example 14, which teaches specific means by which to evaluate promoter specificity, explicitly for CXCR4 and survivin in the specific adenoviral genome contexts described therein.

Moreover, as amended, claim 44 recites that the promoter region is from a gene encoding CXCR4 or survivin, which the Examiner specifically acknowledges is explicitly taught by the specification (Office Action, page 5).

Accordingly, reconsideration and withdrawal of the rejections of claims 25, 27-32, 34-44, and 47 under 35 U.S.C. § 112, first paragraph is respectfully requested.

#### **IV. THE REJECTIONS UNDER**

##### **35 U.S.C. § 112, SECOND PARAGRAPH ARE OVERCOME**

Claims 25, 27-32, 34-42, and 47 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention.

The Examiner alleges that the meaning of the limitation "ranging from nucleotides 324 to 488" in claims 25 and 34 (and claims dependent thereon) is unclear due to the presence of the term "ranging from". In order to expedite prosecution of the pending claims, claims 25 and 34 have been amended to no longer recite this term. In addition, in the interest of expediting

prosecution, claim 34 has been amended as suggested by the Examiner and now recites “deletion of nucleotides 324 to 488 of the adenoviral subtype 5 genome”.

Accordingly, reconsideration and withdrawal of the rejection of claims 25, 27-32, 34-42, and 47 under 35 U.S.C. § 112, second paragraph is respectfully requested.

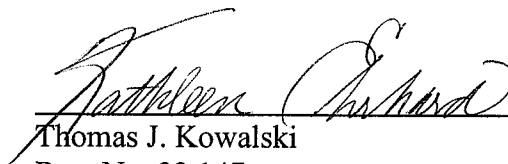
### **REQUEST FOR INTERVIEW**

If any issue remains as an impediment to allowance, an interview with the Examiner is respectfully requested, and the Examiner is additionally requested to contact the undersigned to arrange a mutually convenient time and manner for such an interview.

### CONCLUSION

For the reasons stated above, Applicants respectfully request a favorable reconsideration of the application, consideration and entry of this paper, reconsideration and withdrawal of the rejections of the pending claims, and prompt issuance of a Notice of Allowance. The undersigned looks forward to hearing favorably from the Examiner at an early date, and, the Examiner is invited to telephonically contact the undersigned to advance prosecution.

Respectfully submitted,  
FROMMER LAWRENCE & HAUG LLP

By:   
Thomas J. Kowalski  
Reg. No. 32,147  
Deborah L. Lu  
Reg. No. 50,940  
Kathleen N. Ehrhard  
Reg. No. 55,144  
Telephone: (212) 588-0800  
Facsimile: (212) 588-0500